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HISTORY OF BETHLEHEM FIELD OFFICE
31 JANUARY 1944

On 3 August 1942, the Signal Corps General Development Laboratory leased Plant No. 3 of the Holland Furnace Company at an annual rental of $33,750. This plant was located at 1000 Eighth Avenue, Bethlehem, Pennsylvania. This is in the Northeast part of Bethlehem, near the Allentown City Line. The property consisted of one large brick structure with two small frame structures, all of which had a total floor space of approximately 120,000 sq. ft., located on a forty-two acre plot of land. Two railroad sidings of the Lehigh and New England Railroad came onto the property, one of these sidings running directly into the building.

On 9 October 1942 the Bethlehem Field Office of the Signal Corps General Development Laboratory was established on this site, per Memorandum No. 199 dated 12 October 1942. On 9 December 1942, this organization was redesignated Bethlehem Field Section and made a portion of the newly formed Toms River Signal Laboratory. The Bethlehem Field Section, Toms River Signal Laboratory was deactivated 31 August 1943, per Engineering Division Memorandum No. 3 dated 24 August 1943.

During the life of the Bethlehem Field Office, SCGDL, and the Bethlehem Field Section, TRSL, two major projects were carried on there. One was Project S-58, which covered the design and construction of Radio Sets SCR-696 and 698. The other was the inspection of raw quartz. These projects are treated at greater length in ~~Inclosures No. 1 and 2 to this history.~~ the following paragraphs.

In addition, the Bethlehem location was used by various groups of the

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Signal Corps General Development Laboratory, the Signal Corps Ground Signal Agency and the Signal Corps Ground Signal Service for special purposes. Among these were the following: Certain sound ranging experiments carried on by the Sound, Light and Heat Branch of Eatontown Signal Laboratory during the winter of 1942-1943; certain observation flights of meteorological balloons carried on by the Meteorology Branch, Eatontown Signal Laboratory during the winter of 1942-1943; terminal station for certain experiments on radio relay communication system consisting of Radio Sets AN/TRC-1.

HISTORY OF PROJECT S-58
RADIO SETS SCR-696 AND SCR-698

Radio Set SCR-698 is a complete 1 kw mobile broadcast transmitting equipment used for propaganda purposes. The technical equipment is installed in a K-55 semi-van in the first eight models and in a Shelter HO-17 in a later model. In addition to this vehicle, the radio set consists of an Ordnance M-16 machine shop truck, a K-53 workshop truck, three 2-1/2 ton cargo trucks containing antenna equipment and three power units in 1 ton two wheel trailers.

Radio Set SCR-696 is an intercept unit to use in conjunction with Radio Set SCR-698. Like Radio Set SCR-698, the first eight models are installed in a K-55 trailer with an additional model in a Shelter HO-17. In addition to the vehicle containing the radio equipment, one 2-1/2 ton cargo truck and one power unit are furnished.

A request for one mobile propaganda broadcast station was received by the Office of the Chief Signal Officer in June 1942.

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On 21 August 1942, authorization was received for the procurement of 7 each additional Radio Sets SCR-696 and SCR-698. It was decided that these units should be built at the newly instituted Bethlehem Field Section. Delivery of these additional sets was scheduled for two by 1 October 1942 and the remainder at a rate of one per month.

The delivery of these radio sets was retarded somewhat by procurement and engineering difficulties. However, the pilot models were delivered to the First Signal Radio Service Section and two production models were delivered to other organizations. These organizations were later merged into the First Mobile Radio Broadcasting Company and are now overseas. The remaining five units were completed by June 1943 and were held in suspense. A directive for shipment of these units has been received, however, and four of these units are being readied for shipment. The eighth model is being retained by Camp Coles Signal Laboratory.

A directive dated 26 January 1943 authorized two models of Radio Sets SCR-696 and SCR-698 in Shelters HO-17. One of these was completed and is being shipped to the Armed Forces. The other model was not completed due to the closing of the Bethlehem Field Office and the cancellation of the project.

From November 1942 to August 1943, there were approximately fifty people employed in the fabrication of subject radio sets in addition to secondary personnel, such as Supply, Procurement, and Maintenance.

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INSPECTION OF RAW QUARTZ

The Raw Quartz Inspection Subsection, Bethlehem Field Section, Bethlehem, Pennsylvania, was authorized per request of the Chief Signal Officer, 24 October 1942, for the purpose of relieving the U.S. Bureau of Standards of the task of examining the back-log of a considerable quantity of small sized crystals and for the re-examination of reject materials to salvage all possible usable quartz due to the then existing shortage.

A total of 119 persons were employed on this project, examining well over a million pounds of quartz.

After a training program of approximately three weeks and a preliminary period of one month on examinations of crystal, the personnel of the subsection were examining crystal in a commendable manner in both quality and quantity. Quantities of Bureau of Standards quartz rejects were salvaged, sufficient to pay for the entire project. The majority of the quartz was inspected direct from Brazilian imports. A complete production line was established for the examination of the quartz. Experiments were carried on in conjunction with Lehigh University for the examination of smoky quartz by baking the color out of the quartz. Field trips were made on the possibility of undersized quartz in the Pennsylvania region which might alleviate the shortage.

The subsection was formed from personnel wholly untrained. All equipment for crystal inspection had to be designed and built for production-line type work. Quantity requisition and shipment of quartz required special handling, since accountability therefor was not charged to the Signal Property Officer.

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The Raw Quartz Subsection, Bethlehem Field Section, was functioning smoothly and in an efficient manner at the time of its deactivation on 31 August 1943.